Amendments to the Claims:

This listing of claims will replace all prior versions and listing of claims in the application:

Listing of Claims:

1. (Currently Amended) A method ~~of~~ <u>for</u> designing a circuit board, the method comprising ~~steps of~~:

transmitting a user interface ~~application~~ <u>that requests entry of circuit board design data</u> ~~from a server machine to a client machine via a publicly-accessible global network~~,

receiving user-supplied circuit board design data <u>via the user interface</u> ~~input into the client machine~~,

retrieving circuit board manufacturing cost data ~~from a manufacturing cost database~~ in response to <u>and associated with</u> the user-supplied circuit board design data <u>from a manufacturing cost database</u>, ~~and~~

<u>determining a per-circuit-board cost using the manufacturing cost data, and</u>

updating the user interface ~~application~~ <u>with the per-circuit-board cost</u> ~~on the client machine based on the circuit board manufacturing cost data~~.

2. (Currently Amended) The method of claim 1, wherein ~~the transmitting step includes~~ <u>transmitting the user interface comprises</u> transmitting the user interface ~~application~~ to ~~the~~ <u>a</u> client machine via ~~the~~ <u>a</u> publicly-accessible global network in response to a user-supplied request received by ~~the~~ <u>a</u> server machine via the publicly-accessible global network.

3. (Currently Amended) The method of claim 1, wherein ~~the transmitting step includes~~ <u>transmitting the user interface comprises</u> transmitting the user interface application from ~~the~~ <u>a</u> server machine to ~~the~~ <u>a</u> client machine via the Internet.

4. (Currently Amended) The method claim 1, wherein ~~the transmitting step includes~~ <u>transmitting the user interface comprises</u> transmitting a manufacturing cost database with the user interface ~~application~~ from ~~the~~ <u>a</u> server machine to ~~the~~ <u>a</u> client machine via ~~the~~ <u>a</u> publicly-accessible global network.

5.   (Currently Amended) The method of claim 1, wherein ~~the receiving step includes~~ <u>receiving user-supplied circuit board design data comprises</u> receiving the user-supplied circuit board design data via an input device of ~~the~~ <u>a</u> client machine.

6.   (Currently Amended) The method of claim 1, wherein ~~the receiving step includes~~ <u>receiving user-supplied circuit board design data comprises</u> receiving the user-supplied circuit board design data via ~~the~~ <u>a</u> publicly-accessible global network.

7.   (Currently Amended) The method of claim 1, wherein ~~the retrieving step includes~~ <u>retrieving circuit board manufacturing cost data comprises</u> retrieving the circuit board manufacturing cost data from the manufacturing cost database stored on ~~the~~ <u>a</u> client machine in response to the user-supplied circuit board design data.

8.   (Currently Amended) The method of claim 1, wherein ~~the retrieving step includes~~ <u>retrieving circuit board manufacturing cost data comprises</u> retrieving the circuit board manufacturing cost data, via ~~the~~ <u>a</u> publicly-accessible global network, from the manufacturing cost database stored on ~~the~~ <u>a</u> server machine in response to the user-supplied circuit board design data.

9.   (Currently Amended) The method of claim 1, wherein ~~the retrieving step includes~~ <u>retrieving circuit board manufacturing cost data comprises</u> retrieving the circuit board manufacturing cost data from ~~the~~ <u>a</u> server machine via ~~the~~ <u>a</u> publicly-accessible global network.

10.   (Currently Amended) The method of claim 1, further comprising ~~a step of~~ retrieving circuit board manufacturing capability data from a manufacturing capability database in response to the user-supplied circuit board design data.

11.   (Currently Amended) The method of claim 10, further comprising ~~a step of~~ updating the user interface ~~application on the client machine~~ based on the circuit board manufacturing capability data.

12.   (Currently Amended) The method of claim 11, wherein updating the user interface ~~application on the client machine~~ based on the circuit board manufacturing capability data ~~includes~~ <u>comprises</u> displaying a traffic light image to a user.

13.   (Cancelled)

14.   (Currently Amended) The method of claim ~~13~~ <u>1</u>, wherein ~~the determining step includes~~ <u>determining a per-circuit-board cost comprises</u> determining a per-circuit-board setup cost value and a per-circuit-board run cost value.

15.   (Currently Amended) The method of claim 14, wherein determining the per-circuit-board setup cost value and the per-circuit-board run cost value ~~includes~~ <u>comprises</u> determining a per-circuit-board setup cost value and a per-circuit board-run cost value for each work center of a circuit board manufacturing process in response to the user-supplied circuit board design data.

16.   (Cancelled)

17.   (Original) The method of claim 1, further comprising determining a tooling cost value in response to the user-supplied circuit board design data.

18.   (Currently Amended) The method of claim 17, wherein ~~the determining step includes~~ <u>determining a tooling cost value comprises</u> determining the tooling cost value based on the circuit board manufacturing cost data.

19.   (Currently Amended) The method of claim 1, further comprising ~~steps of~~:
        determining a user selected-portion of the user interface ~~application~~,
        retrieving a circuit board design image based on the user selected-portion of the user interface ~~application~~, and
        displaying the circuit board design image on the ~~client machine~~ <u>user interface</u> to a user.

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20.   (Currently Amended) A method ~~of~~ for designing a circuit board, the method comprising ~~steps of~~:

transmitting a user interface ~~application~~ that requests entry of circuit board design data ~~from a server machine to a client machine via a publicly-accessible global network~~,

receiving user-supplied circuit board design data via the user interface ~~input into the client machine~~,

retrieving circuit board manufacturing capability data from a manufacturing capability database in response to the user-supplied circuit board design data, ~~and~~

determining whether the user-supplied circuit board design data exceeds the manufacturing capability of a circuit board manufacturer based on a comparison of the user-supplied circuit board design data and the circuit board manufacturing capability data, and

updating the user interface ~~application on the client machine based on the circuit board manufacturing capability data~~ if user-supplied circuit board design data exceeds the manufacturing capability of the circuit board manufacturer

21.   (Currently Amended) The method of claim 20, wherein ~~the transmitting step includes~~ transmitting the user interface comprises transmitting the user interface ~~application~~ to ~~the~~ a client machine via ~~the~~ a publicly-accessible global network in response to a user-supplied request received via the publicly-accessible global network.

22.   (Currently Amended) The method of claim 20, wherein ~~the transmitting step includes~~ transmitting the user interface comprises transmitting the user interface application from ~~the~~ a server machine to ~~the~~ a client machine via the Internet.

23.   (Currently Amended) The method claim 20, wherein ~~the transmitting step includes~~ transmitting the user interface comprises transmitting the manufacturing capability database with the user interface application from ~~the~~ a server machine to ~~the~~ a client machine via ~~the~~ a publicly-accessible global network.

24.   (Currently Amended) The method of claim 20, wherein ~~the receiving step includes~~ <u>receiving user-supplied circuit board design data comprises</u> receiving the user-supplied circuit board design data via an input device of ~~the~~ <u>a</u> client machine.

25.   (Currently Amended) The method of claim 20, wherein ~~the receiving step includes~~ <u>receiving user-supplied circuit board design data comprises</u> receiving the user-supplied circuit board design data via ~~the~~ <u>a</u> publicly-accessible global network.

26.   (Currently Amended) The method of claim 20, wherein ~~the retrieving step includes~~ <u>retrieving circuit board manufacturing capability data comprises</u> retrieving the circuit board manufacturing capability data from the manufacturing capability database stored on ~~the~~ <u>a</u> client machine in response to the user-supplied circuit board design data.

27.   (Currently Amended) The method of claim 20, wherein ~~the retrieving step includes~~ <u>retrieving circuit board manufacturing capability data comprises</u> retrieving the circuit board manufacturing capability data, via ~~the~~ <u>a</u> publicly-accessible global network, from the manufacturing capability database stored on ~~the~~ <u>a</u> server machine based on the user-supplied circuit board design data.

28.   (Currently Amended) The method of claim 27, wherein ~~the retrieving step includes~~ <u>retrieving circuit board manufacturing capability data comprises</u> retrieving the circuit board manufacturing capability data from ~~the~~ <u>a</u> server machine via ~~the~~ <u>a</u> publicly-accessible global network.

29.   (Currently Amended) The method of claim 20, wherein ~~the updating step includes~~ <u>updating the user interface comprises</u> displaying a traffic light image to a user.

30.   (Currently Amended) The method of claim 20, further comprising ~~steps of~~:

determining a user selected-portion of the user interface ~~application~~,

retrieving a circuit board design image based on the user selected-portion of the user interface ~~application~~, and

displaying the circuit board design image on the ~~client machine~~ user interface to a user.

31.   (Currently amended) A method ~~of~~ <u>for</u> designing a circuit board, the method comprising ~~steps of~~:

transmitting a user interface ~~application~~ <u>that requests entry of circuit board design data</u> ~~from a server machine to a client machine via a publicly-accessible global network~~,

receiving user-supplied circuit board design data <u>via the user interface</u> ~~input into the client machine~~,

retrieving circuit board manufacturing cost data ~~from a manufacturing cost database in response to~~ <u>associated with</u> the user-supplied circuit board design data <u>from a manufacturing cost database</u>,

retrieving circuit board manufacturing capability data from a manufacturing capability database in response to the user-supplied circuit board design data, ~~and~~

~~updating the user interface application on the client machine based on at least one of the circuit board manufacturing cost data and the circuit board manufacturing capability data~~

<u>determining a number of work centers of a circuit board manufacturing process for manufacturing the circuit board defined by the user-supplied circuit board design data,</u>

<u>determining a per-circuit-board setup cost value and a per-circuit-board run cost value for each work center,</u>

<u>determining a per-circuit-board cost using the per-circuit-board setup cost value and the per-circuit-board run cost value for each work center,</u>

<u>determining whether the user-supplied circuit board design data exceeds the manufacturing capability of a circuit board manufacturer based on a comparison of the user-supplied circuit board design data and the circuit board manufacturing capability data,</u>

<u>displaying the per-circuit-board cost on the user interface, and</u>

notifying a user of the user interface if the user-supplied circuit board design data exceeds the manufacturing capability of a circuit board manufacturer.

32.   (Currently Amended) The method of claim 31, wherein ~~the transmitting step includes~~ transmitting the user interface comprises transmitting the user interface ~~application~~ to ~~the~~ a client machine via ~~the~~ a publicly-accessible global network in response to a user-supplied request received by ~~the~~ a server machine via ~~the~~ a publicly-accessible global network.

33.   (Currently Amended) The method of claim 31, wherein ~~the transmitting step includes~~ transmitting the user interface comprises transmitting the user interface ~~application~~ from ~~the~~ a server machine to ~~the~~ a client machine via the Internet.

34.   (Currently Amended) The method claim 31, wherein ~~the transmitting step includes~~ transmitting the user interface comprises transmitting the manufacturing cost database and ~~a~~ the manufacturing capability database from ~~the~~ a server machine to ~~the~~ a client machine via ~~the~~ a publicly-accessible global network.

35.   (Currently Amended) The method of claim 31, wherein ~~the receiving step includes~~ receiving user-supplied circuit board design data comprises receiving the user-supplied circuit board design data via an input device of ~~the~~ a client machine.

36.   (Currently Amended) The method of claim 31, wherein ~~the receiving step includes~~ receiving user-supplied circuit board design data comprises receiving the user-supplied circuit board design data via ~~the~~ a publicly-accessible global network.

37.   (Currently Amended) The method of claim 31, wherein retrieving the circuit board manufacturing cost data ~~includes~~ comprises retrieving circuit board manufacturing cost data from the manufacturing cost database stored on ~~the~~ a client machine in response to the user-supplied circuit board design data.

38.   (Currently Amended) The method of claim 31, wherein retrieving circuit board manufacturing cost data ~~includes~~ comprises retrieving the circuit board manufacturing cost data from ~~a~~ the manufacturing cost database stored on ~~the~~ a server machine in response to the user-supplied circuit board design data.

39.   (Currently Amended) The method of claim 31, wherein retrieving circuit board manufacturing cost data ~~includes~~ comprises retrieving the circuit board manufacturing cost data from the manufacturing cost database via ~~the~~ a publicly-accessible global network

40.   (Currently Amended) The method of claim 31, wherein retrieving circuit board manufacturing capability data ~~includes~~ comprises retrieving the circuit board manufacturing capability data from the manufacturing capability database stored on ~~the~~ a client machine in response to the user-supplied circuit board design data.

41.   (Currently Amended) The method of claim 31, wherein retrieving circuit board manufacturing capability data ~~includes~~ comprises retrieving the circuit board manufacturing capability data from the manufacturing capability database stored on ~~the~~ a server machine in response to the user-supplied circuit board design data.

42.   (Currently Amended) The method of claim 31, wherein retrieving circuit board manufacturing capability data ~~includes~~ comprises retrieving the circuit board manufacturing capability data from the manufacturing capability database via ~~the~~ a publicly-accessible global network

43.   (Currently Amended) The method of claim 31, wherein ~~updating the user interface application on the client machine includes~~ notifying a user of the user interface comprises displaying a traffic light image to a user.

44-47. (Cancelled)

48.   (Currently Amended) The method of claim 31, further comprising determining a tooling cost value ~~in response to~~ based on the user-supplied circuit board design data.

49.   (Currently Amended) The method of claim 48, wherein ~~the determining step includes~~ determining a tooling cost value comprises determining the tooling cost value based on the circuit board manufacturing cost data.

50.   (Currently Amended) An article comprising a computer-readable signal-bearing medium having therein a plurality of instructions which, when executed by a processor, cause the processor to:

display a user interface ~~application~~ that requests entry of circuit board design data to a user ~~of a client machine~~,

retrieve circuit board manufacturing cost data associated with circuit board design data supplied by the user via the user interface from a manufacturing cost database ~~in response to user-supplied circuit board design data input into the client machine~~,

retrieve circuit board manufacturing capability data from a manufacturing capability database in response to the ~~user-supplied~~ circuit board design data, ~~and~~

determine a per-circuit-board cost using the circuit board manufacturing cost data;

determine whether the circuit board design data exceeds the manufacturing capability of a circuit board manufacturer based on a comparison of the circuit board design data and the circuit board manufacturing capability data,

display the per-circuit-board cost on the user interface, and

notify the user if the circuit board design data exceeds the manufacturing capability of a circuit board manufacturer

~~update the user interface application on the client machine based on at least one of the circuit board manufacturing cost data and the manufacturing capability data.~~

51.   (Currently Amended) The article of claim 50, wherein ~~the plurality of instructions, when executed by the processor, further cause the processor~~ to retrieve the circuit

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board manufacturing cost data comprises to retrieve the circuit board manufacturing cost data from the manufacturing cost database via a publicly-accessible global network.

52.   (Currently Amended) The article of claim 50, ~~wherein the plurality of instructions, when executed by the processor, further cause the processor~~ to retrieve the circuit board manufacturing capability data comprises to retrieve the circuit board manufacturing capability data from the manufacturing capability database via the publicly-accessible global network.